

with a threaded nose on which the bracket *B* is screwed. The spindle was bored out to such a size that the work-holder *C* is a sliding fit in the spindle, the movement of the work-holder being accomplished by means of the lever *I* which is pivoted to the bracket *B*. The quadrant *E* is provided with teeth for the purpose of locking the lever in the closed position. One of the studs to be drilled is shown in position at *F* in the work-holder. It is accurately centered between the tapered drill bushing *G* at one end of the work-holder and the tapered end of the rod *H* at the opposite end of the holder. The drill

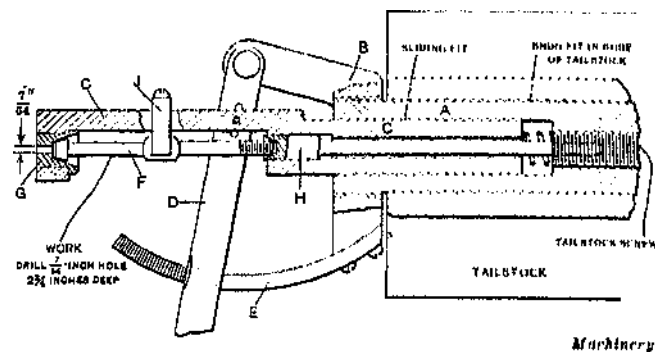


Fig. 17. Jig for Drilling Deep Holes in Studs

bushing is pressed into the end of the work-holder, and the design of the work-holder and the manner in which the rod // is threaded into the tailstock screw are all clearly shown. In setting up a piece of work in the jig, the rod // is held stationary by its threaded connection

with the tailstock screw, and a movement of the lever *D* releases or re-centers the work by sliding the work-holder *C* in the spindle *A*, the work-holder being prevented from turning by means of a clamp *J* which engages the square which is left at the center of the stud.

The drills used for this operation were of exceptional length and made with an increase in the angle of twist. They were held in the lathe spindle and the work was fed up to the drill by means of the tailstock lever. The use of this lever feed made possible the quick return of the work, which enabled